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ABSTRACT

This study evaluated the quality of the learning experiences, accommodation and support strategies, and post-school outcomes of 40 students with disabilities who participated in Wisconsin's Youth Apprenticeship (YA) programs. The YA program is a rigorous 2-year school- and work-based learning program for high school juniors and seniors. Currently 10% of student participants have disabilities. Data analysis focused on tracing the personal and program factors that contributed to either program completion or dropping out, especially the concept of resilience. The study found 11 qualities of youth apprentices with disabilities who demonstrate resilience (and increased likelihood of program completion). These include: (1) candid acknowledgement of one's disability; (2) thorough understanding of one's disability and one's strengths; (3) the ability to articulate needed supports and accommodations; and (4) the ability to put compensatory strategies in practice. The study also identified eight qualities of youth apprenticeship programs that foster resilience in this population including: (1) quality work site placements that provide adequate rotation through occupational competencies; (2) access to knowledgeable and experienced mentors; (3) classroom instruction that integrates academic material and career and technical studies; and (4) available, appropriate accommodations and supports. Results support the view of resilience as an interplay between personal characteristics and specific social contexts and practices. (Contains 22 references.) (DB)

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Profiles of Resilience: Students with Disabilities in Wisconsin's Youth Apprenticeship Program

by Marianne Mooney[1] and Linda Scholl[2]

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Overview

For several decades the federal government has encouraged education and training efforts that aim to develop comprehensive workforce development systems that reflect local and global needs. *A Nation at Risk* (1983) called for major reforms in America's schools designed to improve the competitiveness of U.S. businesses in the global economy. Among the recent demands for change in the American high school curriculum, a persuasive argument has been made for greater preparation of all high school students both for work and for further education. For example, all students in the New American High Schools are expected to meet challenging academic standards and to acquire the technical, communication, and information processing skills necessary to pursue college and careers (Hudis & Visher, 1999). Since 1995, there has been a substantial rise in work-based learning programs nationally. Recent studies examining the use of structured work-based learning approaches in education suggest that such approaches may contribute to better outcomes such as student achievement, knowledge assimilation and retention, motivation, and educational continuation (Bailey & Merritt, 1997; Phelps, 1998; Steinberg, 1998).

Despite significant Federal and state investments in improving educational and postschool outcomes for youth with disabilities, postschool outcomes remain uniformly disappointing (Phelps & Hanley-Maxwell, 1997). For students with disabilities who do complete high school, access to employment, earnings, and postsecondary education falls substantially below that of their peers. Together, the School-to-Work Opportunities Act and the Individuals with Disabilities Education Act contain provisions outlining the career exploration and student support strategies assuring that all youth, including those with disabilities, are better prepared to make the successful transition from school to today's technologically challenging and rapidly changing workplace. Studies have shown that youth with disabilities who take vocational education in the last year of high school or concentrate in a vocational content area (sequence) tend to have more positive postschool outcomes such as higher rates of high school graduation, competitive employment, postsecondary education attendance, and advances in earnings or wages (Wagner, 1991; Wagner, et al., 1993).

In an effort to better understand the impact of participation in work-based learning programs on students with disabilities, the Center on Education and Work undertook a study of the quality of the

learning experiences, accommodation and support strategies, and post-school outcomes of students with disabilities who have participated in Wisconsin's Youth Apprenticeship (YA) Programs. The goals of this research project were to:

1) identify those factors that contributed to students with disabilities completing the program and making a successful transition to careers and/or college;
2) identify strategies that facilitated the inclusion and accommodation of students with disabilities in youth apprenticeship programs; and
3) use this information to better assist stakeholders (students, parents, employers, school staff) directly involved in the career development and decision-making processes of high school students and youth with disabilities.

Wisconsin's Youth Apprenticeship (YA) Program is a rigorous two-year school- and work-based learning program for high school juniors and seniors. Students interested in participating in the program choose a particular career field for which a statewide industry-recognized curriculum has been developed (see Table 1). For a portion of their high school credits and school time, participants are placed at a worksite in an entry-level, paid position where they work and receive on-the-job training for an average of 10-15 hours/week. In addition, they receive 3-6 hours/week of school-based instruction in that occupation. Through the two years they are in the program, students are rotated through a variety of "competencies" both at the workplace and through their school work that introduce them to the breadth of basic skills and knowledge needed to pursue that occupation. At the end of the two years, youth apprentices graduate from high school and earn an

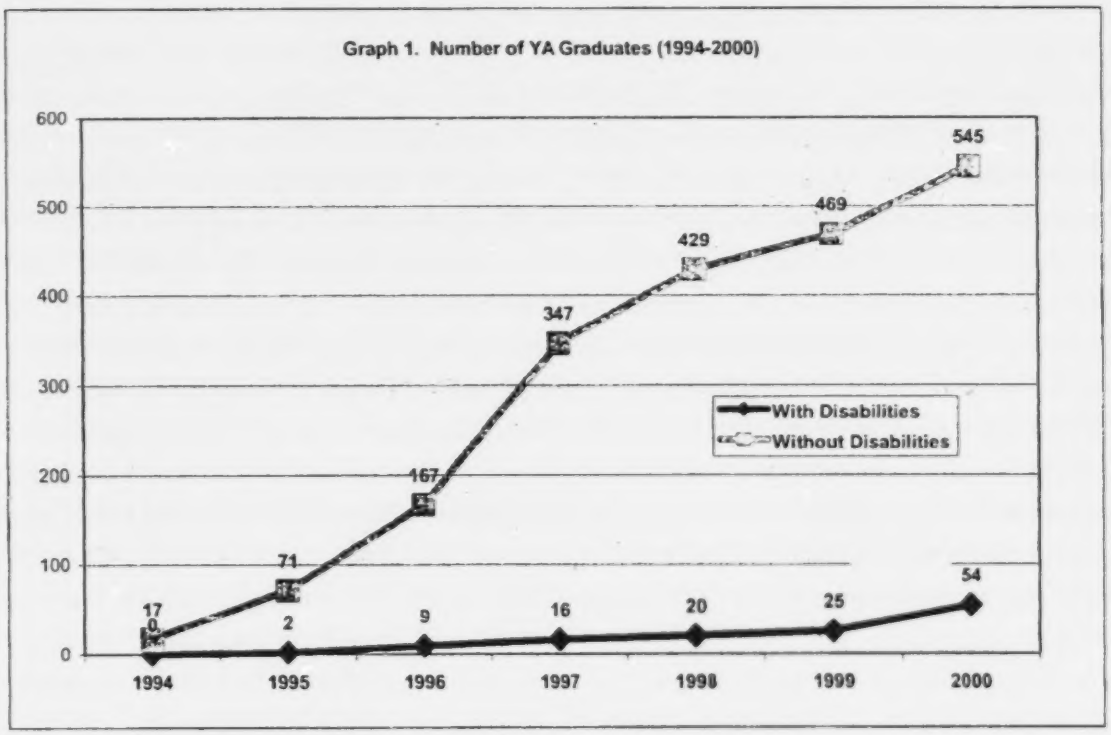
Table 1: YA Occupational Areas

- ❒ Auto
  - ♦ Collision
  - ♦ Technician
- ❒ Biotechnology
- ❒ Drafting & Design
  - ♦ Architecture
  - ♦ Engineering
  - ♦ Mechanical Design
- ❒ Financial Services
- ❒ Health Services
- ❒ Hotel/Motel
- ❒ Information Technology
  - ♦ IT
  - ♦ Cisco Networking
- ❒ Insurance
- ❒ Logistics
- ❒ Manufacturing
  - ♦ Machining
  - ♦ Plastics
  - ♦ Production
- ❒ Printing/GA
- ❒ Production Ag
  - ♦ Animal Science
  - ♦ Crops
- ❒ Tourism
- ❒ Welding

industry-recognized Certificate of Occupational Proficiency. In addition, Youth Apprenticeship graduates are eligible to receive advanced standing credits at a Wisconsin technical college. Wisconsin's YA program is coordinated by the Governor's Work-Based Learning Board and administered locally by a variety of consortium arrangements. Participation is open to all students; however, the occupational choices available to students at any particular high school vary significantly depending on the local economy and availability of worksites.

Wisconsin's YA program began in 1992, with the first 17 students graduating in 1994. Since then, the number of students graduating has grown each year. In 2000, 545 students representing 22 different occupational fields graduated through the youth apprenticeship. Between 1994 and 2000, 126 students with disabilities graduated from the YA program (See Graph 1 below).

Graph 1. Number of YA Graduates (1994-2000)



Currently ten percent of students participating in Wisconsin YA programs have disabilities. Approximately 70% of students who start the YA program go on to completion two years later, while 30% discontinue

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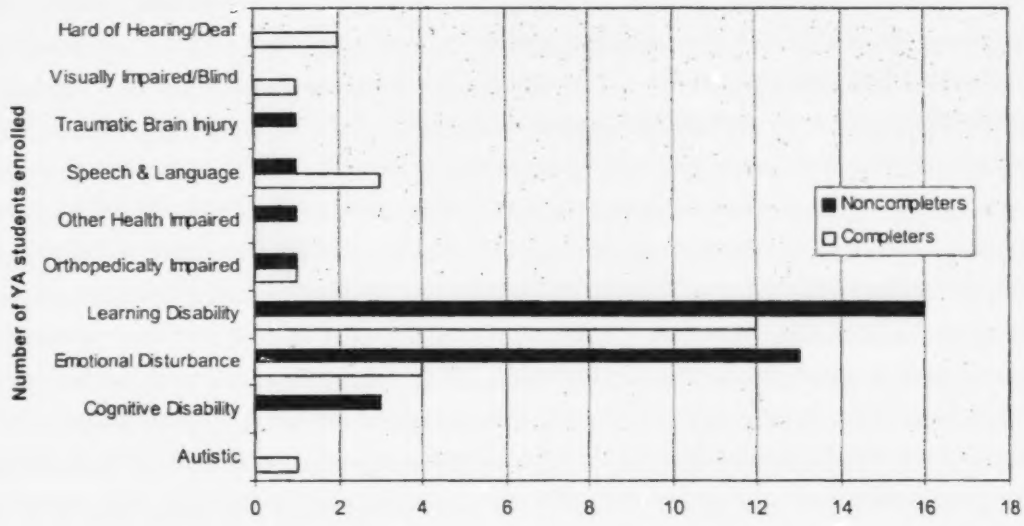
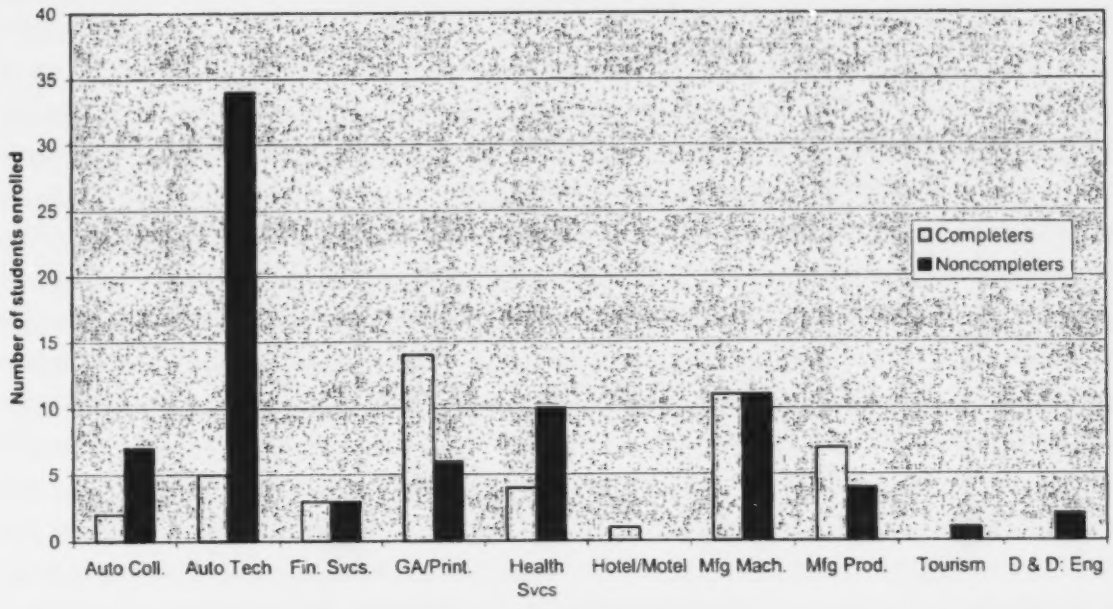
participation before completion. Students with disabilities, however, have a higher rate of non-completion than students without disabilities. While students with disabilities comprise 6.2% of the graduates, they comprise 9% of the non-completers. Despite this higher non-completion rate, it is clear that students with disabilities can and do perform well in youth apprenticeship programs.

The vast majority (77%) of students with disabilities participating in the YA program have learning disabilities, while other disabilities are represented in much smaller numbers (See Graph 2 below). In general, students with disabilities have enrolled in certain YA programs over others including Printing/Graphic Arts, Auto Technician, and Manufacturing/Machining. Compared to students without disabilities, apprentices with disabilities are over-represented in the auto technician, auto collision, manufacturing/ machining, and manufacturing/ production programs. They are under-represented in the finance and health programs (See Graph 3).

Graph 2. Participation of Students with Disabilities: Primary Disability (1994-1998)



Graph 3. Participation of Students with Disabilities: YA Programs (1994-1998)



The Study

Sampling Procedure

Selecting an interview sample that is representative of the population is one step toward assuring generalizability of the results. Random selection or even a stratified random-sampling approach was not possible in this in-depth interview study due to the small numbers of potential participants and the requirement for participant consent. Therefore, a purposeful sampling technique was used in which the range of sites and people most fairly represents the larger population (Seidman, 1991).

Two state-level databases, the VEERS (Vocational Education Enrollment Reporting System) database and the EEN (Exceptional Education Needs) database were accessed to retrieve information on the number of students with disabilities who had participated (completers and non-completers) in the Wisconsin Youth Apprenticeship Program between 1992 and 1999. One comprehensive database of students with disabilities was developed that incorporated the variables identified as significant for this study. A second database was constructed from which to draw comparison groups of students without

disabilities. Personal identifying information (student names, addresses, and phone numbers) was not available through these databases because of confidentiality concerns. The researchers requested that the local YA coordinators assist them in contacting students with disabilities for possible inclusion in the study. Sixty-seven percent of the state's coordinators agreed to assist in the identification efforts. Approximately 30% of these coordinators indicated that they had not had any students with disabilities participate in their program to date. One hundred forty-seven students with disabilities were identified and contacted by their coordinator. The target group of 20 completers and 20 non-completers was selected based on its representativeness (i.e., gender, disability type, YA program, completion status, graduation year, region of state) of the entire population of *apprentices with disabilities*. A comparison group of completers and non-completers without disabilities was selected based on similar variables.

Table 2 (below) provides information about the students with disabilities (program completers and non-completers) who were the focus of the study.

Table 2: Student Participants with Disabilities

Gender	Grad Yr	YA Program	YA Status	Disability
Female	1998	Hotel/Motel	Completer	LD
Male	1998	Manufacturing/Production	Completer	LD
Male	1999	Auto Collision	Completer	LD
Male	1997	Graphics/Printing	Completer	LD
Male	1996	Graphics/Printing	Completer	LD
Male	1997	Manufacturing/Machining	Completer	LD
Male	1996	Graphics/Printing	Completer	LD
Male	1999	Manufacturing/Production	Completer	LD, ED
Female	1999	Tourism	Completer	LD
Male	2000	Manufacturing/Machining	Completer	CD
Male	1998*	Auto Technician	Non-Completer	LD, ED, ADHD
Male	1997*	Auto Collision	Non-Completer	LD
Male	1999	Auto Technician	Non-Completer	LD, S & L
Male	1999*	Graphics/Printing	Non-Completer	LD, ED
Male	1998	Manufacturing/Production	Non-Completer	LD
Male	1999	Manufacturing/Machining	Non-Completer	LD, VI
Male	1999	Graphics/Printing	Non-Completer	LD
Male	1998	Finance	Non-Completer	OI
Male	1998	Auto Collision	Non-Completer	ED
Male	1999	Auto Technician	Non-Completer	LD

* = did not graduate from high school

Data Collection

Project staff compiled data on students and their programs by conducting personal interviews and reviewing documents (i.e., transcripts, IEPs, multidisciplinary team meeting reports, YA competency check lists). Personal interviews were conducted with five groups of individuals: program graduates with disabilities; non-completers with disabilities, program graduates without disabilities, non-completers without disabilities, and key stakeholders (parents, general and special education teachers, employers, workplace mentors, and YA coordinators and instructors). Interviewees were selected for study to help

educators better understand the overall benefits of the YA program and the partnerships that can cultivate student learning and personal growth within a rigorous career development program, as well as barriers to completing the program for *all* students. Interview questions focused on demographic information; the program recruitment, preparation, and selection process; daily routine; relationships; characteristics of the graduate with a disability; supports and accommodations; postschool employment; postschool education/training; and reflections on the future.

Data Analysis

A cross-interview method was used to organize the content analysis of the data (Patton, 1990). The cross-interview method involved grouping the answers from different interviewees on the same questions. The content analysis involved coding and categorizing patterns and themes that emerged from the data. An ongoing process of content analysis was employed throughout the data collection process as interviews were completed and transcribed. Themes that emerged across questions for each interview were also categorized and analyzed. The materials within the categories were examined to identify variations and nuances in meaning, while across-category comparisons were used to discover connections between the themes. As the concepts evolved, relevant elements of previous theories were incorporated that had proven to be pertinent to the data gathered in the study.

Theoretical Construct: Resilience

Early in the study, it became evident that students had vastly different experiences and outcomes in their youth apprenticeship programs. While many students, both with and without disabilities, benefited greatly from the experience; others struggled and eventually dropped out. Our subsequent analysis focused, then, on tracing the personal and program factors that contributed to a successful or unsuccessful experience. Interview data collected specifically from apprentices with disabilities revealed the existence of personal and program protective factors within the youth apprenticeship learning experience that can be grouped under the general construct of resilience.

Resilience has been defined as *the capacity to successfully adapt and thrive, despite challenging circumstances where success is not predicted.* Common characteristics of resilient individuals include: a)

having a caring, supportive environment; b) having someone who holds high expectations for him/her; c) finding a way to overcome or compensate for a problem that occurs; d) bouncing back from the problems that would seem to doom another person to certain failure; e) perceiving him/herself as someone capable of working through problems to either overcome them, change them, or endure and resolve them; f) establishing positive relationships with adults and peers that help the individual gain a bond with family, school, and community; e) being willing to seek out help from others to solve a problem; f) removing oneself from a bad situation and taking some control of one's own environment; f) believing s/he can and will succeed; and g) being able to see a future that is bright and good (Benard, 1993; Brodkin & Coleman, 1996; Dirling, 1999; Henderson, 1998; Novick, 1998; Tarwater, 1993).

There is an abundance of literature describing characteristics that generate resilience in individuals. Moreover, the interplay of disabilities and resilience has been increasingly studied and described in the past decade. Concern about the development of resilience is particularly pertinent to learners with disabilities because of their forecasted gloomy outcomes. The presence of a disability can have an ongoing impact on an individual's personal and professional growth and sense of accomplishment across the life span. There is even conjecture that a disability itself may be considered a risk factor to further resilience (Keogh & Weisner, 1993; Luthar & Zigler, 1991; Spekman, et al., 1992). A disability is a risk that must be coped with and compensated for because it cannot be avoided.

Students with disabilities have an increased likelihood of risk factors that may bring about a lack of resilience, such as academic struggles, difficulties in social adjustment, grade retention, dropping out of school, and chronic low self-esteem (Miller, 1996). Other risk factors associated with the presence of a disability are: hyperactivity, depression, anxiety, behavior and discipline problems, low reading ability, lack of verbal and social finesse, low commitment to school, denial of disability, underemployment, job difficulties, and high levels of dissatisfaction with their lives (Kavale, 1988).

Protective factors, those mechanisms that moderate a person's reaction to stressful experiences or adversity (Werner, 1995), ameliorate chronic problems often associated with disabilities and reduce the probability of negative outcomes. Protective factors may reside within the individual, in the responsiveness of the environment to the individual, or in the "fit" of the individual to the environment" (Morrison & Cosden, 1997). For instance, an individual with a disability may feel more comfortable asking

for workplace accommodations because he/she views the workplace as a supportive and caring environment. In turn, these accommodations may assist the individual in becoming an independent and productive worker who better meets the needs of the employer.

Using a resilience framework allows us to explore the varying personal characteristics of the participants, and an array of specific YA program features in different local contexts, as well as the interplay between these two factors. The importance of studying resilience is apparent in that if we can discover the protective factors that shield youth from failure in work-based learning programs and the strategies that resilient youth use, we then can design programs to facilitate the development of resilience in a number of environments. Additionally, if we can discern the characteristics of those students who do well in challenging workplace learning situations, we then can identify the personal and environmental resources needed to buffer the anticipated stresses.

Key Findings

Early in our review of the data, Definitions of each factor are presented below.

1. **Disability Awareness and Orientation.** The degree to which the student, family, school, community, and worksite: a) understand a student's disability and how it may impact on his/her academic and technical learning process
   and/or performance, and b) view the disability as a deficit or as a difference that can be aided by the use of appropriate accommodations and supports.
2. **Disclosure.** Whether and under what circumstances the student's disability is made known to others.
3. **Advocacy/Self-Advocacy.** The level of support the student has for communicating his/her needs, concerns, and rights and for communicating the legitimacy of those concerns. A strategy for ensuring greater participation in decision-making processes relating to his/her own life.
4. **Accommodations and Supports**. The strategies used to help students with disabilities learn and perform in ways that recognize their particular needs (e.g., curriculum modifications, alternative forms of assessment, comprehensive support services).

5. **Key Mentors/Role Models.** Key mentors are individuals who can advise the student on a regular basis on how to navigate the challenges of participating in the YA program. Role models are individuals who are successfully living and working with disabilities.
6. **Communication/Collaboration:** The degree to which the various program stakeholders work together to meet the needs of the youth apprentices as they progress through the program.
7. **Interpersonal Skills:** skills relating to the ability to communicate with others and effectively problem-solve. This includes the use of verbal, written, and listening skills, critical thinking skills, as well as social interaction skills.
8. **Compensatory Strategies:** (sometimes referred to as "self-accommodations") Strategies individuals can draw on to enhance their own learning process and work performance (e.g., time management and study skills, asking for help when needed, and requesting extra time to complete tasks).

Qualities of youth apprentices with disabilities who demonstrate resilience are: 1) candid acknowledgement of one's disability; 2) thorough understanding one's disability and one's strengths; 3) the ability to articulate needed supports and accommodations in the workplace and classroom; 4) the ability to put compensatory strategies in practice; 5) having interests and abilities that fit well with the competencies and skills needed in the chosen career field; 6) successful negotiation of work environments; 7) maintaining a high level of motivation and persistence; 8) engagement in academic tasks; 9) autonomy combined with the ability to ask for help; 10) communication and problem solving skills; and 11) a strong sense of being in control.

Qualities of youth apprenticeship programs that foster resilience in apprentices with disabilities include: 1) quality worksite placements that provide adequate rotation through occupational competencies; 2) access to knowledgeable and experienced mentors; 3) classroom instruction that integrates academic material and career and technical studies; 4) available, appropriate accommodations and supports in the classroom and at the worksite that promote student growth and independent work; 5) supportive adults who foster trust and confidence and advocate for the students; 6) highly effective

communication networks between all stakeholder groups; 7) rewards for achieving program competencies; and 8) quality classroom instruction.

We found that the presence or absence of each of the protective factors contributed to a student's overall "resilience" in participating and persisting in the Wisconsin Youth Apprenticeship Program. Whether or not a particular student had a successful YA experience appeared to depend on the presence of factors that promote resilience. In general, we note that those students who had successful YA experiences tended to have more of those elements that build and support the development of resilience. While these factors were central to all students' experience, they were particularly critical in the YA experience of students with disabilities. For instance, low levels of communication between stakeholders can mean that problems at the worksite do not get addressed in a timely fashion. While students without disabilities may take the initiative to resolve those problems on their own, students with disabilities may be more reluctant to approach a supervisor or advocate themselves. When such problems persist, students with disabilities may lose the motivation to persist in the program. Thus, the above factors need to be monitored much more closely whenever students with disabilities are participating in youth apprenticeships.

Key findings for each protective factor as they relate to Wisconsin's YA program are presented below.

Disability Awareness and Orientation

- Three out of four youth apprentices with disabilities lacked a general understanding about the nature of their disability, and therefore poorly articulated their disability-related needs to classroom instructors and employers.
- Youth apprentices with disabilities lacked a general understanding about their abilities, and therefore were less likely to utilize their strengths to compensate for or overcome weaknesses.
- Three out of four youth apprentices with disabilities viewed their disability as a purely academic issue, and failed to recognize how disability can play a significant part in workplace performance and success
- 50% of youth apprentices with disabilities viewed their disability as a deficit, a personal weakness; while 50% view their disability simply as a "difference."

- The general orientation towards disability evident in a student's community is one of deficit. Students internalize these negative messages about their worth and capacities to learn and perform well both in school and at work.
- Across stakeholders, disability is generally viewed as the student's problem rather than society's inability to accept and accommodate individual differences. Apprentices with disabilities are considered responsible for adapting to the norm.

Disclosure

- Two thirds of youth apprentices with disabilities did not disclose their disabilities to their YA instructors, mentors, or employers.
- Most youth apprentices were not taught to "effectively" disclose their disability to others by exercising caution in deciding to whom to disclose and sharing information only on a need to know basis.
- Youth apprentices with disabilities often deliberately employed "passing" techniques in an attempt to hide their disability for fear of rejection and stigmatization. As a result, their needs often went unmet.

Advocacy/Self-Advocacy

- Most youth apprentices with disabilities exhibited low levels of self-advocacy, especially in the workplace setting. The shift from advocacy by stakeholders (parents, teachers) to self-advocacy had generally not occurred.
- Most youth apprentices with disabilities did not exhibit the skills needed to report that work experiences were unsatisfying, and to indicate their desire for purposeful activity and greater participation in training activities.
- Those youth apprentices who were self-advocates were able to achieve change in employers' attitudes and behaviors by challenging the negative images of individuals with disabilities.
- Most apprentices had at least one school-based adult in their school environment that played the role of advocate. This advocate role often did not include advocating for the student at the YA worksite or with off-site YA instructors.

Accommodations and Supports

- All youth apprentices with disabilities received traditional accommodations for academic content courses provided at their high schools (i.e. tests read orally, textbooks on tape, extended testing time).
- These same accommodations were rarely provided to youth apprentices who received their YA instruction outside their high school (i.e., area technical college). Accommodations were not systematically planned but occurred "after the fact" when individual problems arose.
- Very few accommodations were provided to youth apprentices at their YA worksite.
- Employers were often unaware of the student's disability, and therefore were not required to provide accommodations of any kind.
- For those 35% of youth apprentices who did disclose to their employers, the employers were receptive, although often uninformed about what they were expected to do to assist the student.
- 70% of youth apprentices with disabilities had difficulty articulating which accommodations and support services are most effective for them in a workplace setting.

Key Mentors/Role Models

- The presence of a mentor played an important role in the success of students with disabilities in the YA program.
- Effective mentors provided one-on-one instruction, but more importantly, ongoing emotional support and expectations for high quality work. They were an important source of practical advice and support.
- Youth apprentices with disabilities often selected their own mentors, gravitating to an individual who was willing to take them "under his/her wing."
- A key mentor can have a critical impact on an apprentice's orientation toward their disability by helping him/her understand the disability not as a deficit but rather as a difference that calls for particular accommodations. Adults with disabilities (potential role models) were not visible in the school or workplace settings.

Communication/Collaboration

- In the YA program in general, collaboration and communication between stakeholders has consistently been identified by program graduates (both with and without disabilities) as one of the main weaknesses of the program. For youth apprentices with disabilities, this program weakness was strongly evident. Limited collaboration or communication took place between school staff and students' off-site instructors and workplace employers/mentors.
- Most special education teachers did not actively address the disability-related needs of students in their workplace or off-site instructional settings in the IEP transition plans.
- In small communities, communication between school personnel, off-site YA instructional staff, and worksite mentors/employers was more common.

Interpersonal Skills

- Youth apprentices with disabilities indicated that an improved verbal and written communication skill was one benefit derived from participation in the YA program.
- Most apprentices with disabilities appreciated that their employers treated them as adult workers with adult expectations and consequences.
- Those apprentices with disabilities who were gregarious by nature more easily took advantage of informal supports at work.
- Few problems between apprentices with disabilities and coworkers were reported by any stakeholders.

Compensatory Strategies

- Many youth apprentices with disabilities used a variety of strategies to compensate for their disabilities. These included: asking for help to understand and complete tasks, using good time management techniques, spending extra time on work duties and/or YA coursework, taking their questions to the special education resource room, and keeping personalized notebooks containing commonly used technical terms.

- Success in the YA program was enhanced by the students' willingness and ability to use available support systems.
- Youth apprentices mentioned gaining such skills as problem solving and time management skills while participating in the YA program. They viewed these as transferable skills that could be used throughout their working lives regardless of their specific occupational field.

DISCUSSION

Although these factors may appear from the above discussion to be separate elements, they are in fact closely interrelated and interdependent. No single factor or specific set of factors leads to resilience across all contexts. Rather, it is the dynamic nature of the entire constellation of factors played out within particular contexts that leads to positive and productive work-based learning experiences for youth with disabilities. While one student may only need access to a key mentor in order to benefit from participation in the program, another student may need support in many different areas to succeed.

Resilience is commonly thought of as a personality trait that certain individuals simply possess. We suggest, however, that resilience evolves from the interplay between personal characteristics and specific social contexts and practices. Individuals draw on their inherent strengths, talents, and personal characteristics to meet and respond to challenging situations. However, the environment in which they find themselves also influences what responses and approaches are possible. In the case of the Youth Apprenticeship Program, students' personal characteristics and an array of YA program components were integral to students' success and satisfaction with their work and learning experience. Youth apprenticeship students participate in a demanding program in which instructors, coordinators, and employers have high expectations for performance. Students are expected to manage an often-complicated class and work schedule in which they move between their school, an off-school worksite, and an instructional site. They must continue to take general academic coursework required for graduation, while learning new technical skills and performing well in a job setting with adult coworkers. Students utilize their own inherent strengths when undertaking the challenges of participation in YA, yet resilience also can be fostered when programs and stakeholders are organized and coordinated with a keener understanding of the specific needs of students with disabilities. Particular program components,

then, play a vital role in promoting students' development of resilience. When participants develop resilience, they have greater self-awareness and a sense of competence in being able to meet and respond to the challenges of creating meaningful transitions to life and work after high school.

Furthermore, we suggest that personal characteristics that promote resilience can be *developed and strengthened* through students' participation in high quality youth apprenticeship programs, and through students' interaction with program staff, instructors, employers, and key mentors. Clearly, students enter the program with differing personal resources and areas of strength and weakness. The role of the program is to provide mechanisms and support through which students learn to capitalize on their strengths, compensate for their limitations, and develop positive strategies for responding to challenging circumstances. For example, students' interpersonal skills can be developed when YA stakeholders model strong communication and collaboration among themselves. Compensatory strategies can be actively taught in special education settings. Careful planning of supports and accommodations helps students become more knowledgeable and articulate about their disability-related needs in a variety of environments. Self-advocacy skills can be developed and practiced within students' school settings and then transferred to off-school settings with appropriate support. Disclosure issues can be addressed through direct and open discussions with students about potential risks and benefits. These skills will have value for students with disabilities far beyond their YA setting. When students learn to meet and successfully respond to new changes, they are developing skills that they will use throughout their lifetime in many different contexts. YA coordinators, school staff, employers, mentors, and parents play a key role in that process.

With appropriate and consistent support and the presence of both personal and protective factors, students with disabilities can and do succeed in YA programs. Indeed, work-based learning programs like YA play a critical role in providing students with disabilities with equal preparation and access to work. *Many students with disabilities have successfully participated in and completed the Wisconsin Youth Apprenticeship Program.* For most students, their YA learning experience provided opportunities to become resilient. Students reported feeling more autonomous and competent in an adult working environment. Ultimately, we expect that the graduates with disabilities will have more successful

postschool outcomes as a result of their participation in YA and corresponding enhanced levels of resilience.

Despite many students' successful completion of the program, there are a number of areas in which the YA program could be doing a better job of meeting and responding to the needs of students with disabilities. Supports and accommodations should be planned in advance of a student's entry into the program, and then monitored more closely and modified as the student moves through the program. In addition, self-advocacy training for students with disabilities and collaboration between stakeholders are key program components that need to be improved. With these improvements, more students with disabilities would have the opportunity to participate in and successfully complete this valuable work-based learning program.

References

Bailey, T. & Merritt, D. (1997). *School-to-work for the college bound*. New York: Teachers College, Columbia University, Institute on Education and the Economy.

Benard, B. (1993, November). Fostering resilience in kids. *Educational Leadership*, 44-48.

Brodkin, A., & Coleman, M. (1996, May/June). What makes a child resilient? *Instructor*, 28-29.

Dirling, J. (1999, Spring). Inclusion: Enhancing resilience. *Preventing School Failure, 43*(3), 125-8.

Henderson, N. (1998, January). What makes resiliency happen? *The Education Digest*, 15-17.

Hudis, P.M. & Visher, M.G. (1999). *Aiming high: Strategies to promote high standards*. Berkeley, CA: MPR Associates.

Kavale, K.A. (1988). The long-term consequences of learning disabilities. In M.C. Wang, M.C. Reynolds, & H.J. Walberg (Eds.), *Handbook of special education: Research and practice* (Vol. 2, pp. 304-344). New York: Pergamon Press.

Keogh, B.K., & Weisner, T. (1993). An ecocultural perspective on risk and protective factors in children's development: Implications for learning disabilities. *Learning Disabilities Research and Practice, 8*, 3-10.

Luthar, S.S., & Zigler, E. (1991). Vulnerability and competence: A review of research on resilience in childhood. *American Journal of Orthopsychiatry, 61*, 6-22.

Miller,M. (1996). Relevance of resilience to individuals with learning disabilities. International Journal of Disability, Development and Education, 43, 255-269.

Morrison, G.M., & Cosden, M.A. (1997). Risk, resilience, and adjustment of individuals with learning disabilities. *Learning Disability Quarterly, 20*, 43-60.

Novick, R. (1998, Summer). The comfort corner: Fostering resiliency and emotional intelligence. *Childhood Education*, 200-204.

Patton, M. Q. (1990). *Qualitative evaluation methods* (2nd ed.). Newbury Park, CA: Sage.

Phelps, L.A. (1998). Changing work, changing learning: The imperative for teacher learning in workplaces and communities. In *Teacher Learning in the Workplace and Community*. Madison: University of Wisconsin, Center on Education and Work.

Phelps, L.A., & Hanley-Maxwell, C. (1997). School-to-work transitions for youth with disabilities: A review of outcomes and practices. *Review of Educational Research, 67*, 197-226.

Seidman, I.E. (1991). *Interviewing as qualitative research*. New York: Teachers College Press.

Spekman, N.J., Goldberg, R.J., & Herman, K.L. (1992). Learning disabled children grow up: A search for factors related to success in the young adult years. *Learning Disabilities Research & Practice, 7*, 161-170.

Steinberg, A. (1998). *Real learning, real work: School-to-work as high school reform*. Berkeley: University of California at Berkeley, Graduate School of Education.

Tarwater, P. (1993). Glass, plastic, or steel? *Childhood Education*, 272-273.

Wagner, M. (1991). *The benefits of secondary vocational education for young people with disabilities. Findings from the National Longitudinal Transition Study of Special education Students*. Menlo Park, CA: SRI International.

Wagner, M., Blackorby, J., Cameto, R., & Newman, L. (1993). *What makes a difference? Influences on postschool outcomes of youth with disabilities. The third comprehensive report from the National Longitudinal Transition Study of Special Education Students*. Washington, DC: U.S. Department of Education, Office of Special Education Programs.

Werner, E.E. (1995). Resilience in development. *American Psychological Society*, 4, 81-85.

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